

ABSTRACT

There is provided an electron-emitting device of a field emission type,
with which the spot size of an electron beam is small, an electron emission area is
5 | large, highly efficient electron emission is possible with a low voltage, and ~~the~~
manufacturing process is easy. The electron-emitting device includes a layer 2
which is electrically connected to a cathode electrode 5, and a plurality of particles
| 3 which contains a material having a resistivity lower than that of a material
constituting the layer 2, and is wherein a density of particles 3 in the layer 2 is $1 \times$
10 $10^{14}/\text{cm}^3$ or more and $5 \times 10^{18}/\text{cm}^3$ or less.